

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

PCT

WRITTEN OPINION
(PCT Rule 66)

To:

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Applicant's or agent's file reference
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REPLY DUE **within 3 month(s)**
from the above date of mailing

International application No.
PCT/ES 03/00446

International filing date (day/month/year)
03.09.2003

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04.09.2002

International Patent Classification (IPC) or both national classification and IPC
H04M3/487

Applicant
VODAFONE GROUP PLC et al

1. This written opinion is the **first** drawn up by this International Preliminary Examining Authority.
2. This opinion contains indications relating to the following items:
 - I ☒ Basis of the opinion
 - II ☐ Priority
 - III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
 - IV ☐ Lack of unity of invention
 - V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
 - VI ☐ Certain documents cited
 - VII ☐ Certain defects in the international application
 - VIII ☐ Certain observations on the international application
3. The applicant is hereby **invited to reply** to this opinion.

When? See the time limit indicated above. The applicant may, before the expiration of that time limit, request this Authority to grant an extension, see Rule 66.2(d).

How? By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3. For the form and the language of the amendments, see Rules 66.8 and 66.9.

Also: For an additional opportunity to submit amendments, see Rule 66.4.
For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4 bis.
For an informal communication with the examiner, see Rule 66.6.

If no reply is filed, the international preliminary examination report will be established on the basis of this opinion.
4. The final date by which the international preliminary examination report must be established according to Rule 69.2 is: 04.01.2005

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I. Basis of the opinion

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed"*):

Description, Pages

1-25 as originally filed

Claims, Numbers

1-28 as originally filed

Drawings, Sheets

1/7-7/7 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
☐ the language of publication of the international application (under Rule 48.3(b)).
☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority in written form.
☐ furnished subsequently to this Authority in computer readable form.
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
☐ the claims, Nos.:
☐ the drawings, sheets:

5. ☐ This opinion has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

6. Additional observations, if necessary:

V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. Statement**

Novelty (N)	Claims	
Inventive step (IS)	Claims	1-28
Industrial applicability (IA)	Claims	

2. Citations and explanations**see separate sheet**

Re Item V

Reference is made to the following documents:

D1: US-B-6 310 9481

D2: WO 01 22752 A1

1. The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claims 1-28 does not involve an inventive step in the sense of Article 33(3) PCT.
- 1.1 The document **D1** is regarded as being the closest prior art to the subject-matter of claim 1 and discloses (the references in parentheses applying to this document):

A dialling error notification system (column 3, lines 44-63, "apparatus for analysing international dialling errors", Fig. 1B, "adjunct 60") for (see column 5, lines 6-23) subscribers (Fig. 1B, "10", "the caller at station 10") in a telephony network ("Fig. 1B, "70", "domestic switched telephone network").

The system of D1 comprises:

- a) a first node (Figs. 1B and 2, "60" and column 7, lines 10-24, "adjunct 60") of the telephony network ("Fig. 1B, "70") comprising means (Fig. 2, "processor VAX 200" together with "database management system 220") for (see column 7, line 25 to column 8, line 34) analysing a number dialled by a subscriber ("10") and determining whether said dialled number complies at least one determined error criterion ("match", see also Fig. 3); and
- b) means (Fig. 2, "voice interactive system 210") for (column 8, lines 35-61) sending a short message ("voice announcement") with a dialling error notification ("existence of a potential error") to the subscriber ("the caller") if said dialled number complies with at least one determined error criterion ("a potential error has been detected").

- 1.2 The system as claimed in claim 1 differs from the one described in D1 in that the subscribers are specifically visiting subscribers in a visited mobile telephony network, that is to say, subscribers from a home mobile telephony network different from the visited mobile telephony network.

In view of this difference, the problem to be solved by claim 1 can be regarded as how to send a short message to a visiting subscriber in a visited mobile network.

- 1.3 The aforementioned problem and its solution are however known in the prior art, see for example document D2, page 1, lines 7-9, which discloses a system (page 5, lines 20-30, "a short message gateway comprising a gateway function SMGF") adapted to transfer short messages between non-compatible networks (in D2, the home mobile telephony network is an IMT-2000 network and the visited mobile telephony network is a PDC network).

In particular, the system of D2 (see page 2, lines 20-25 and page 7, lines 20-24) allows visiting subscribers ("IMT-2000 subscribers, while roaming onto the PDC network") to receive short messages when visiting the network (see also Figs. 6 and 10). Additionally, D2 discloses that (page 7, lines 20-24) "mobile terminated messages do not necessarily originate from a mobile subscriber".

- 1.4 Consequently, the person skilled in the art starting from the system of D1 and facing the aforementioned problem would use the gateway function defined in D2 in order to send the short message defined in D1 to the visiting subscriber, reaching this way the subject-matter of claim 1.

Therefore, the solution proposed in claim 1 of the present application cannot be considered as involving an inventive step (Article 33(3) PCT).

- 1.5 The same reasoning applies, mutatis mutandis, to the subject-matter of the corresponding method claim 13, which therefore is also considered not inventive over the disclosure of D1 in combination with D2.
2. The dependent claims do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of inventive step. The reasons are as follows:

Claims 2 and 14. The systems of both D1 and D2 are already provided with SS7-capabilities (see D1 column 5, line 47 to column 6, line 3, and D2, page 6, lines 13-23, "TCAP" and "ISUP").

Claims 3, 5, 6, 7, 8, 15, 16, 17, 18, 20, 21, 22 and 23. The idea of making the content of the short message ("voice announcement") dependent on the network identity ("context-based analysis") has been already suggested in D1, see the example with "Nice (France)" from column 8, line 6 to column 10, line 60. The determination of the identities of both the home and the visited network for the

transfer of short messages in a visited mobile network is also disclosed in D2, see page 6, lines 2-7 and page 16, lines 1-5.

The subject-matter of claims 4, 9, 10, 19, 24, 25 and 28 cannot be considered as involving an inventive step over the disclosure of D2. In particular, page 22, line 7 to page 23, line 14 and Fig. 10 disclose a procedure to send a short message to a visiting subscriber ("IMT-2000 subscriber roaming in the PDC network"). The procedure involves internal signalling among some intermediate nodes. The fact that some of the internal signalling messages have specifically an http format is just a design option common to those skilled in the art.

The features of claims 11, 12, 26 and 27 can be seen as constructional details of the misdialling detection method which do not add anything inventive to the system of D1, see column 2, lines 29-48 and column 4, lines 26-30.

Additional remarks.

In claim 4, it is not clear whether it is the message or the short message the one which is sent to the SS7-IP gateway. The same applies to the message sent to the short message sending server. Additionally, it is not clear whether the term "a short message" in claim 4 is the same as the one defined in claim 1. The term "the short message text" in claim 5 is not clear since there is no reference to a "text" in any of the previous claims. For further clarification, the word "subscriber" should be replaced by "visiting subscriber" and the use of acronyms should be avoided throughout the whole set of claims.